Sky-Watcher EQ2 RA Motor Drive With Multi Speed Handset Installation Guide

Contents

Sky-Watcher EQ2 RA Motor Drive With Multi Speed Handset

Product Information

- The EQ2 Motor Drive is a device designed to be used with an equatorial mount and telescope. It automatically compensates for the rotation of the earth, allowing stars to appear stationary in the telescope eyepiece. The motor drive comes with a hand control box, a 5-pin DIN cable, and a DC power cord.
- The motor drive is powered by 4 ‘D’ cell batteries (not included) and has an on/off switch to control its power. It also features an N/S switch to change the direction of motor tracking. The S setting is specifically for observing in the Southern Hemisphere.
- The motor drive has a metal tab attached to the equatorial mount, which acts as a clutch to engage and disengage the motor drive. Pushing the tab down disengages the motor, while lifting it up engages the motor. It is important to disengage the motor before using the R.A. fine-adjust cable.
- The tracking speed of the R.A. motor is factory set and should not require adjustment. Any adjustment of the variable resistor inside the control box should be done by an experienced technician.
- The motor drive is compatible with various telescopes and mounts, providing a convenient solution for astrophotography and long-exposure observations.

Product Usage Instructions

1. **Installation:**
    1. Remove the R.A. fine-adjust cable from the equatorial mount.
    2. Loosen the thumb screw below the worm gear on the side of the equatorial mount.
    3. Attach the free end of the tension spring to the telescope mount using the screw.
    4. Loosen the t-handle screw on the motor drive.
    5. Slide the motor onto the mounting rod.
    6. Rotate the motor assembly until the motor drive gear and right ascension gear mesh properly.
    7. Tighten the t-handle screw to hold the motor in place.
    8. Plug the 5-pin DIN cable from the hand control box into the motor.
    9. Plug the DC power cord from the battery case into the power outlet on the control box.
2. **Operation:**
   Ensure that the power is on and all buttons on the control box are depressed. The motor drive will automatically rotate at the correct speed to compensate for the rotation of the earth, allowing stars to appear stationary in the telescope eyepiece. To engage or disengage the motor drive, use the metal tab attached to the equatorial mount. Push the tab down to disengage the motor and lift it up to engage the motor. Remember to disengage the motor before using the R.A. fine-adjust cable. The N/S switch on the control box changes the direction of motor tracking. Set it to ‘S’ when observing in the Southern Hemisphere. The LED light on the control box indicates the status of the motor drive. Under normal operation, it is green. If the LED begins to flash, it indicates an imminent battery failure.

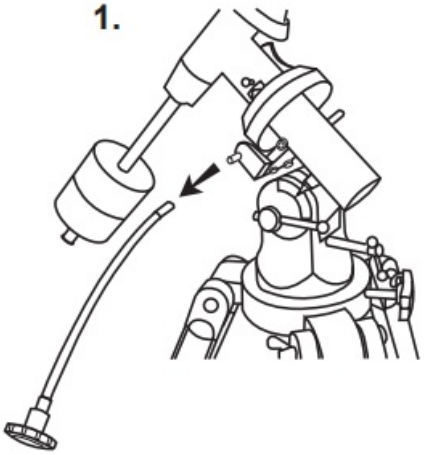
If you require technical support, please contact:

Canada: 604-270-2813 between 9:00AM and 3:00PM PST

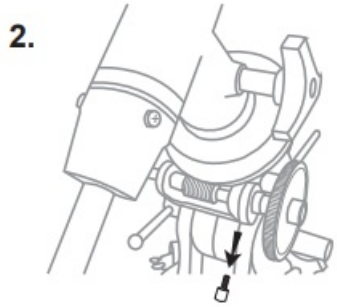
Outside Canada: Please contact your dealer for technical support.

INSTALLATION

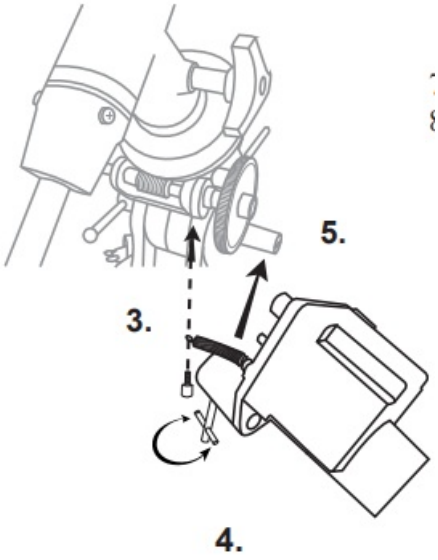
1. Remove R.A. fine-adjust cable from equatorial mount.



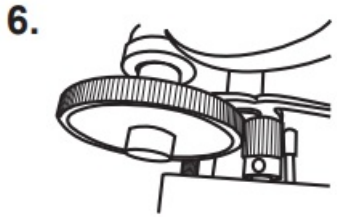
2. Loosen the thumb screw below worm gear on the side of the equatorial mount.



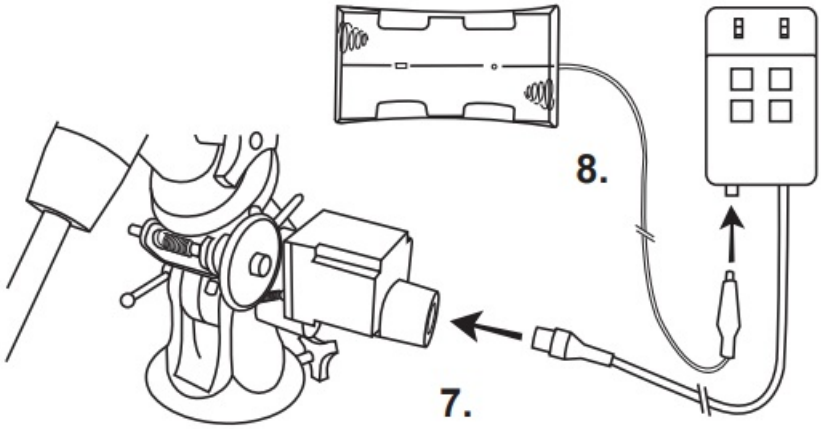
3. Attach free end of tension spring to telescope mount using the screw.



4. Loosen t-handle screw on motor drive.
5. Slide motor onto mounting rod.
6. Rotate motor assembly until motor drive gear and right ascension gear mashes properly as shown. Tighten t-handle screw to hold motor in place.



7. Plug 5-pin DIN cable from hand control box into motor.



8. Plug DC power cord from battery case into power outlet on control box.

OPERATION

A motor drive allows tracking of celestial objects. Tracking corrects for rotation of the earth by rotating the telescope at about the speed of an hour hand on a clock. The single axis drive unit is known as a clock drive. For polar-aligned equatorial mounts, the motor drive will correct for earth's rotation. The hand controller can be used as a correction for long exposure photographs. For the motor drive to properly compensate for the earth's rotation, your telescope mount must be polar-aligned and the altitude axis set to your local latitude. Under these conditions, no adjustment of the declination axis should be necessary for astrophotography. You will only need the R.A. motor drive.

When the power is on and all buttons on the control box are depressed, the motor drive will automatically rotate at the correct speed to compensate for the rotation of the earth. Its rotation speed matches the earth's rotation rate for stars to appear stationary in telescope eyepiece. The metal tab attached to the equatorial mount (above the mounting shaft) acts as a clutch to engage and disengage the motor drive. Push the tab down to disengage motor. Lift tab up to engage motor. Be sure to disengage motor before using the R.A. fine-adjust cable.

The on/off switch controls power for the motor drive. The N/S switch changes direction of motor tracking. The "S" setting should be used for observing in the Southern Hemisphere. The motor drive requires 4 'D' cell batteries (not included) to operate. A set of batteries will allow several nights of observing. The LED light is green under normal operation. The LED begins to flash in the case of imminent battery failure. The right "2X" button will rotate the telescope forward at twice the tracking speed or approximately ½º per minute. The left "2X" button stops all motion and allows stars to drift by at their normal rotation rate of approx. ¼º per minute. The "8X" buttons allows forward at eitht times the tracking rate (approx. 2º per minute) and the reverse button move the telescope backwards at seven times the tracking rate (approx. 1 ¾º per minute).

The tracking speed of the R.A. motor is factory set and should not need adjustment. Adjustment of the variable resistor inside the control box should be preformed by an experienced technician.

Technical Support

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Outside Canada: Please contact your dealer for technical support.

Documents / Resources

	**Sky-Watcher EQ2 RA Motor Drive With Multi Speed Handset** [pdf] Installation Guide EQ2 RA Motor Drive With Multi Speed Handset, EQ2 RA, Motor Drive With Multi Speed Handset, Drive With Multi Speed Handset, Multi Speed Handset, Speed Handset, Handset

References

- **User Manual**